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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,946	03/25/2004	Guy Brenchley	VPI/02-118 US	6414

27916 7590 01/23/2007
VERTEX PHARMACEUTICALS INC.
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EXAMINER	
RAO, DEEPAK R	
ART UNIT	PAPER NUMBER
1624	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/23/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/809,946	BRENCHLEY ET AL.	
	Examiner	Art Unit	
	Deepak Rao	1624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 November 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,7-19,31-40,43,44,46 and 47* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 7-19, 31-40, 43-44, 46-47* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This office action is in response to the amendment filed on November 13, 2006.

Claims 1, 7-19, 31-40, 43-44 and 46-47 are pending in this application.

Withdrawn Rejections/Objections:

Applicant is notified that any outstanding rejection/objection that is not expressly maintained in this office action has been withdrawn or rendered moot in view of applicant's amendments and/or remarks.

The following rejections are maintained:

1. Claims 43 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a method of treating rheumatoid arthritis or asthma comprising the step of administering a compound of formula (I), does not reasonably provide enablement for a method of inhibiting SYK or ZAP-70 kinase activity in a biological sample generally. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims. The reasons provided in the previous office action are incorporated here by reference.

Applicant's arguments have been fully considered but they were not deemed to be persuasive. Applicant argues that 'claim 43 is enabled for inhibiting SYK or ZAP-70 activity in the recited biological samples'. The claim continues to be open ended to include many and all

types of biological samples, as the language includes, for example, "cell culture, biopsied material obtained from a mammal, ... or an extract thereof". The claim continues to be in a 'reach through' format as being drawn to mechanistic, receptor binding or enzymatic functionality, for which they lack written description and enabling disclosure in the specification thereby requiring undue experimentation for one of skill in the art to practice the invention.

As can be seen from the definition of the term "biological sample" and the purpose of the inhibition of Aurora-2, GSK-3 or Src activity which includes for example, blood transfusion, organ-transplantation, etc. As the inhibition of SYK or ZAP-70 protein kinase activity in a biological sample is disclosed to be useful for blood transfusion, organ-transplantation, etc., it implicitly reads on the inherent therapeutic methods characterized by the activity, which as per the specification includes numerous types of disorders. The use disclosed for the compounds of the invention is as therapeutic agents and the specification does not provide any other purpose or utility based on the activity of the compounds.

Further, the instantly claimed method alternatively recites the use of 'a composition according to claim 40', which composition comprises 'the compound of formula I and a pharmaceutically acceptable carrier or diluent' as being added to the biological sample. A pharmaceutical composition of the kind recited in the instant claims is generally used for internal adminstration type therapeutic methods. Therefore, it is maintained that the instant claim continues to be directed towards the treatment of diverse diseases disclosed in the specification. Therefore, it is maintained that applicants have not provided sufficient test assays or data to support the method of inhibition commensurate in scope with the claim.

Thus, factors such as "sufficient working examples", "the level of skill in the art" and

"predictability", etc. have been demonstrated to be sufficiently lacking in the use of the invention. In view of the breadth of the claim, the chemical nature of the invention, the unpredictability of ligand-receptor interactions in general, and the lack of working examples regarding the activity of the claimed compounds, one having ordinary skill in the art would have to undergo an undue amount of experimentation to use the invention commensurate in scope with the claims.

2. Claims 13, 19, 32, 34, 36 and 37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The following reasons apply:

1. In claim 13, there is no definition provided for the variable " n ". The discrepancy is also present in claim 19.
2. In claims 32 and 34, the definitions of 'n' and 'm' appear twice. Deletion of one occurrence is suggested.
3. In claim 36, in the definition of R^3, the term "$(CH_2)_nC(O)R^7$ $(CH_2)_nCH_3$" is not understood. It appears there should be a 'comma' (,) separating the two terms.
4. In claim 37, in the definition of R^4, the term "$(CH_2)_nC(O)R^7$ $(CH_2)_nCH_3$" is not understood. It appears there should be a 'comma' (,) separating the two terms.

This rejection was made previously, applicant neither amended the claims nor provided an explanation.

3. Claims 1, 7-19, 31-40, 43-44 and 46-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cochran et al., WO 02/096905. The reasons provided in the previous office action are incorporated here by reference.

Applicant's arguments have been fully considered but they were not deemed to be persuasive. Applicant argues that 'the novel substituted thiazole analogs of the present invention have improved pharmacological properties over the unsubstituted thiazole analogs of the reference'. Applicant relies on IC_{50} data of some of the instantly claimed compounds compared to the corresponding unsubstituted compounds of the reference. First, the data provided is not in a declaration format. Objective evidence of enablement must be presented in an appropriate affidavit or declaration and attorney arguments cannot take the place of the evidence. Further, Figure 1 in the response provides the data without providing any explanation of the types of tests, the test conditions, etc., such that one of ordinary skill in the art could extrapolate the data to the compounds of the instant claims.

4. Claims 1, 7-19, 31-40, 43-44 and 46-47 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-15, 17-30, 34 and 36-44 of copending Application No. 10/809,944.

Applicant's argues that 'according to MPEP 804(I)(B), if provisional double patenting rejection is the only remaining rejection, then it must be withdrawn'. However, as other issues remain in this application, the provisional double patenting rejection is maintained.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deepak Rao whose telephone number is (571) 272-0672. The examiner can normally be reached on Monday-Friday from 8:00am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James O. Wilson, can be reached at (571) 272-0661. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Deepak Rao
Primary Examiner
Art Unit 1624

January 15, 2007